AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A monodirectional impeller for centrifugal electric pumps having a permanent-magnet synchronous motor, comprising:

a ring; and

a plurality of vanes which protrude outwardly from said ring, defining a central region of the vanes adjacent to an axis of rotation of the ring, and a peripheral region of the vanes, the vanes being rigidly coupled to the ring at the central region of the vanes,

wherein ~~its~~ said vanes are nondeformable in their central region and are elastically deformable ~~at least along part of their extension~~ in their peripheral region, and

wherein a curvature of said peripheral region is greater during rotation of the impeller ~~can change their curvature~~, when loaded, in ~~one~~ a wrong direction of rotation, so that the power required for rotation of the impeller in that direction is greater than the maximum power that can be delivered by the motor.

2. (Cancelled)

3. (Currently amended) The impeller according to claim 1, ~~comprising a plastic ring from which a plurality of vanes protrudes monolithically outward,~~ wherein said ring ~~being~~ is plastic and is accommodated in a corresponding seat of a disk which ends perimetrically on the outside of each one of said vanes.

4. (Currently amended) The impeller according to claim [[1]] 3, ~~comprising a plastic~~

~~disk from which a~~ wherein said plurality of vanes ~~having~~ have a curved profile and protrude[[s]] monolithically from said disk, the peripheral regions of said vanes being separated from said disk and being flexibly deformable.

5. (Currently amended) The impeller according to claim [[1]] 3, comprising retention teeth which are alternated with said vanes and act as retention elements to avoid excessive curvatures of said peripheral region of vanes in a wrong direction of rotation.

6. (Original) The impeller according to claim 5, wherein in order to center said vanes with respect to said retention teeth, said ring has axial teeth to be inserted in suitable holes of said disk.

7. (Original) The impeller according to claim 1, wherein said vanes are enclosed between two disk-like elements.

8. (Original) The impeller according to claim 3, wherein said vanes are rigidly coupled to said disk or ring by interlocking and/or interference, ultrasonic welding, adhesive bonding, or equivalent methods.

9. (Currently amended) The impeller according to claim 1, comprising:

a driving device which is constituted by a substantially cylindrical closed enclosure which is rigidly coupled to said impeller; and

a tooth which protrudes from an inner wall of ~~which a tooth protrudes~~ the driving device, said tooth being rigidly coupled to the impeller assembly and interacting with a tooth which protrudes from a ring which is rotatable about a shank which is rigidly coupled to a rotor shaft,

a tooth protruding radially from said shank and interacting, in its rotation, with the tooth ~~of~~

protruding from the ring,

wherein the ~~whose~~ axial protrusion of the tooth protruding from the ring is such as to affect the path of the rotation of both teeth, said teeth being arranged axially so as to not interfere with each other.

10. (Original) The impeller according to claim 9, wherein said enclosure is constituted by a hollow body and by a cover which is closed hermetically.

11. (Original) The impeller according to claim 10, wherein an hermetic seal of said driving device is ensured by a gasket for said shaft and by the closure of said cover by ultrasonic welding, adhesive bonding, a gasket or equivalent methods.

12. (Original) The impeller according to claim 10, wherein grease having a shock absorbing function is arranged inside said hollow body.

13. (Currently amended) The impeller according to claim 1, wherein ~~it has~~ the impeller comprises, at an end thereof, a seat for a first shim ring made of a hard material, a second shim ring made of a hard material being accommodated in a seat which is provided at one end on a cylindrical support which is supported by a bush which is rigidly coupled, by means of connecting spokes, to a ring which is accommodated in a corresponding seat of a volute of the impeller.

14. (Original) The impeller according to claim 13, wherein said support is monolithic with said bush.